



GEORGIA SCHOOL
SUPERINTENDENTS
ASSOCIATION

Welcome to the 2009 Fall Bootstrap Conference

Disrupting Class: How Disruptive Innovation Will Change the Way the World Learns



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October 21, 2009
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Understanding how users experience life

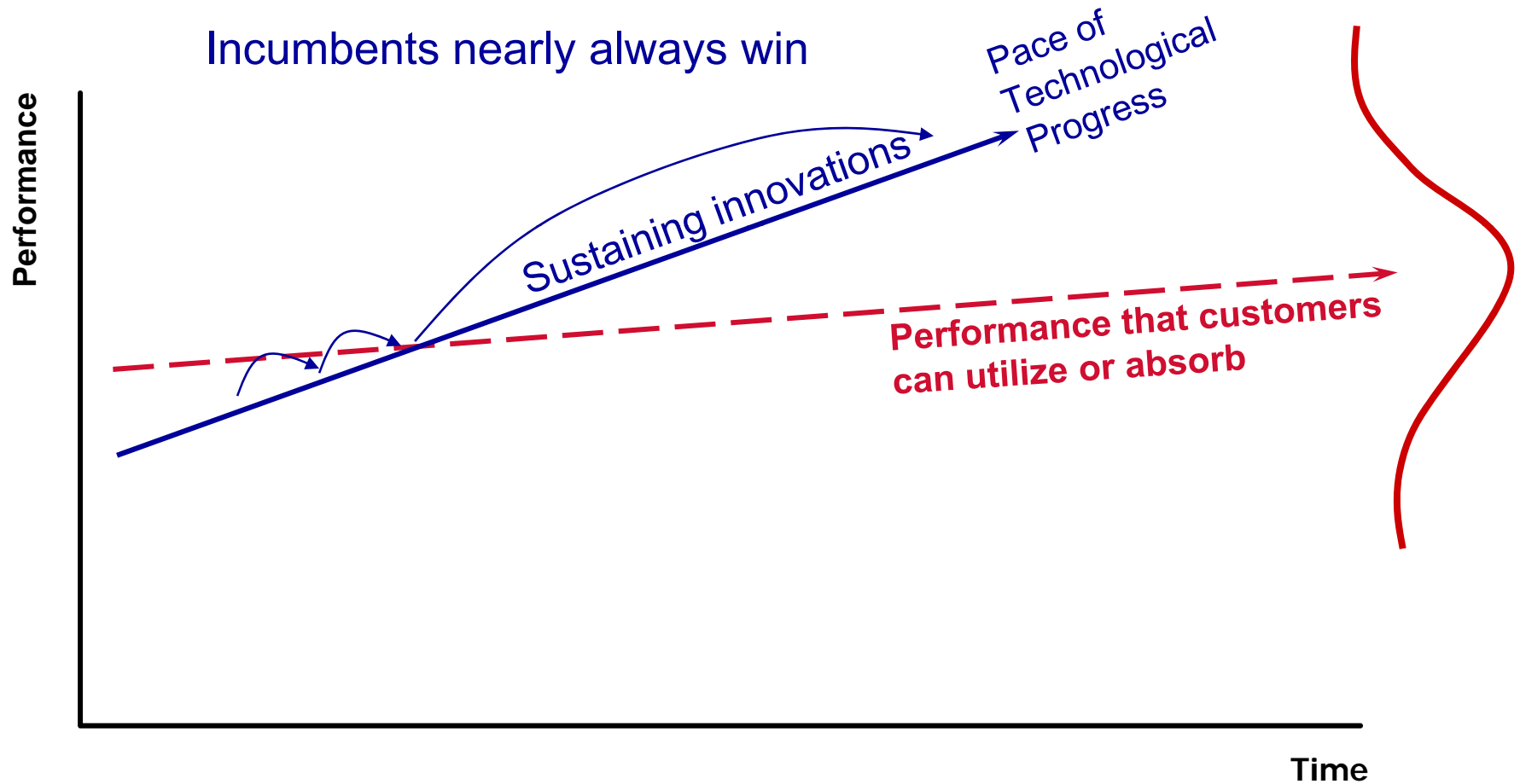


What jobs are students trying to do?

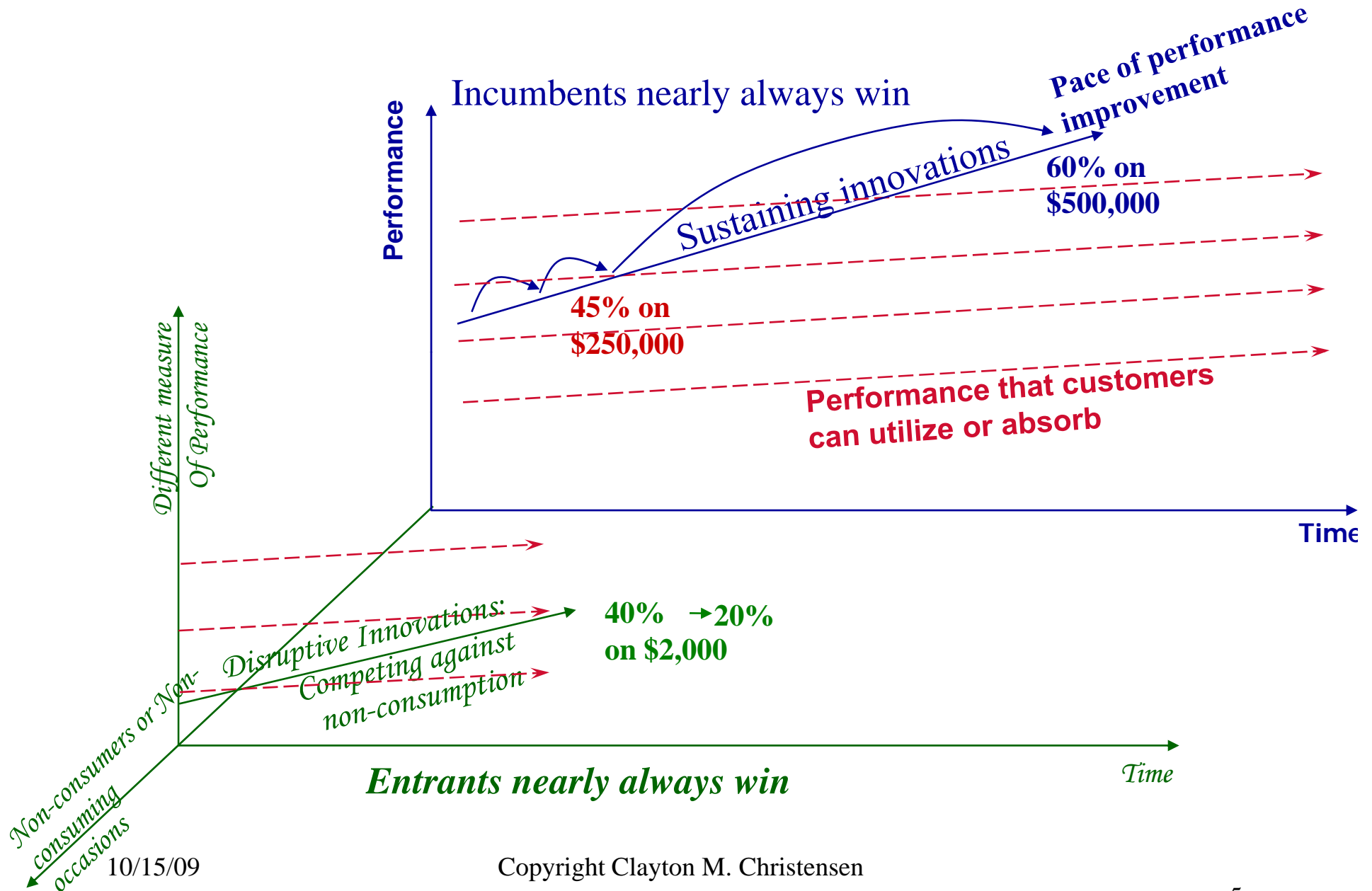
- Be successful
- Have fun
- Have friends

Key reason why students' motivation is weak is that schools are improperly integrated: Instruction is typically uncoupled from activities in which students can feel success

Sustaining and Disruptive Innovations



Disruptive Innovations create asymmetric competition



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Disruption in business models has been the dominant historical mechanism for making things more affordable and accessible

Yesterday

- Ford
- Dept. Stores
- Digital Eqpt.
- Delta
- JP Morgan
- Xerox
- IBM
- Cullinet
- AT&T
- State universities
- Sony DiskMan

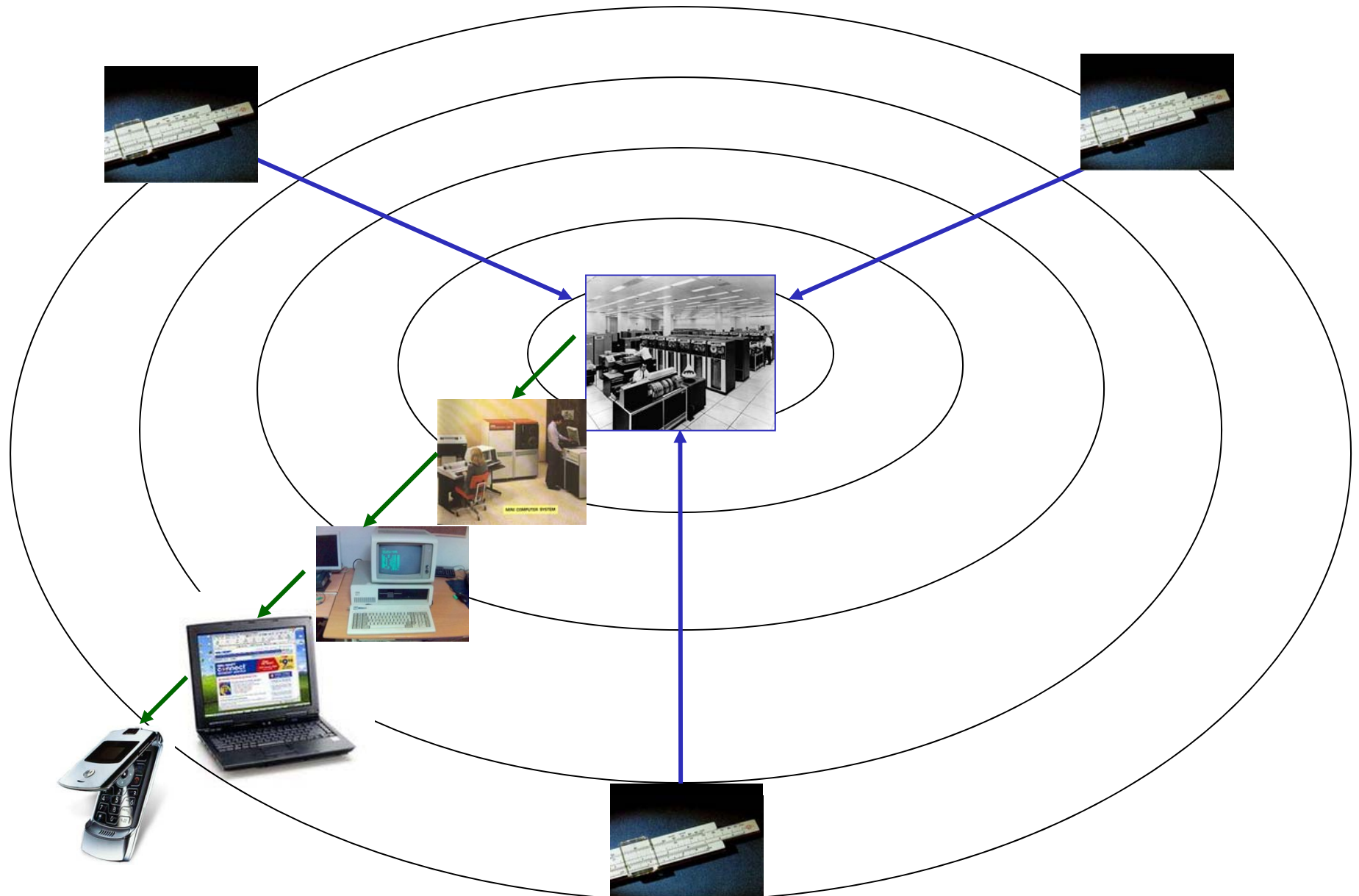
• Today

- Toyota
- Wal-Mart
- Dell
- Southwest Airlines
- Fidelity
- Canon
- Microsoft
- Oracle
- Cingular
- Community colleges
- Apple iPod

Tomorrow:

- Chery
- Internet retail
- RIM Blackberry
- Air taxis
- ETFs
- Zink
- Linux
- Salesforce.com
- Skype
- Online universities
- Cell Phones

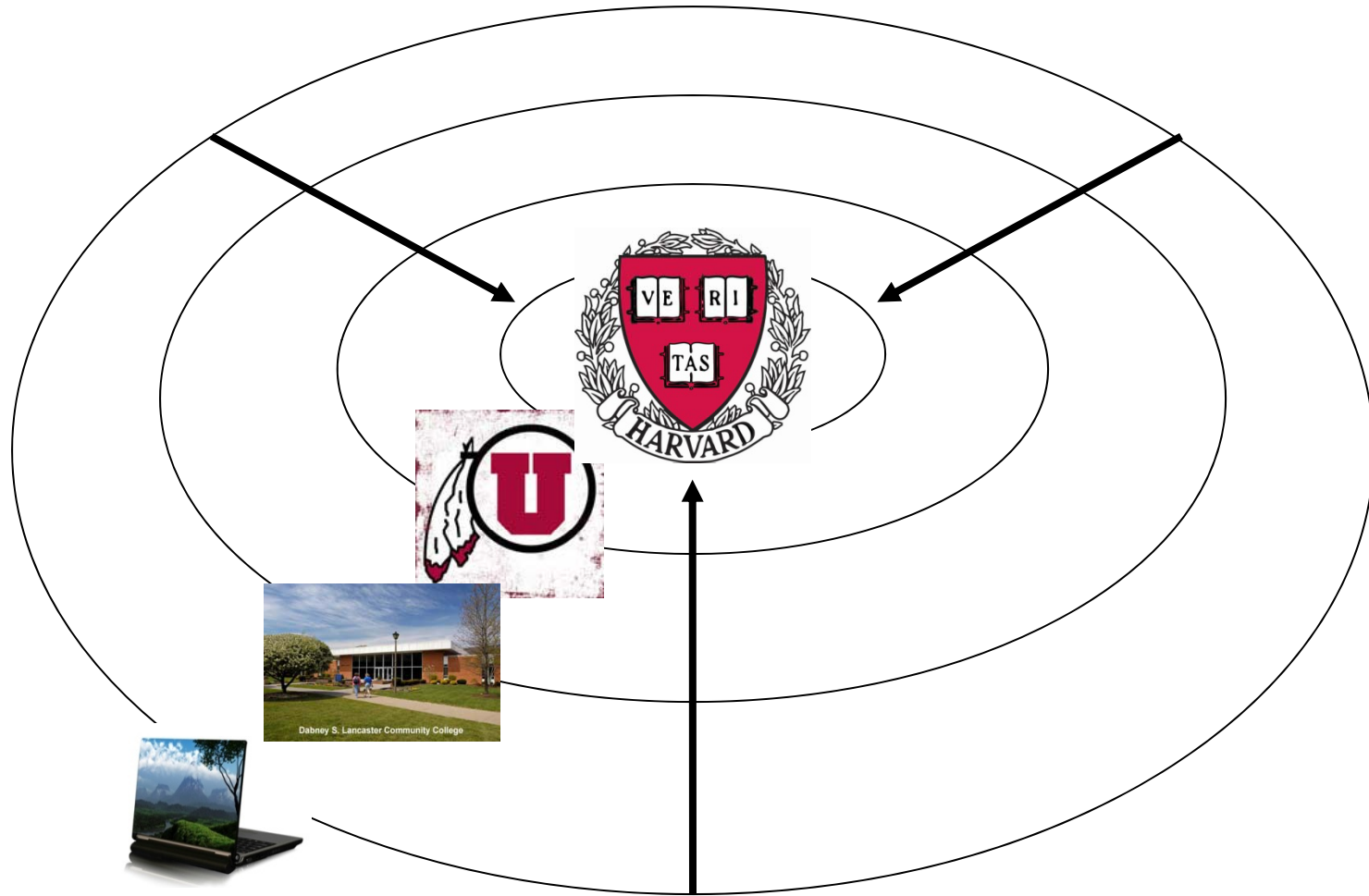
Centralization followed by decentralization: Computing



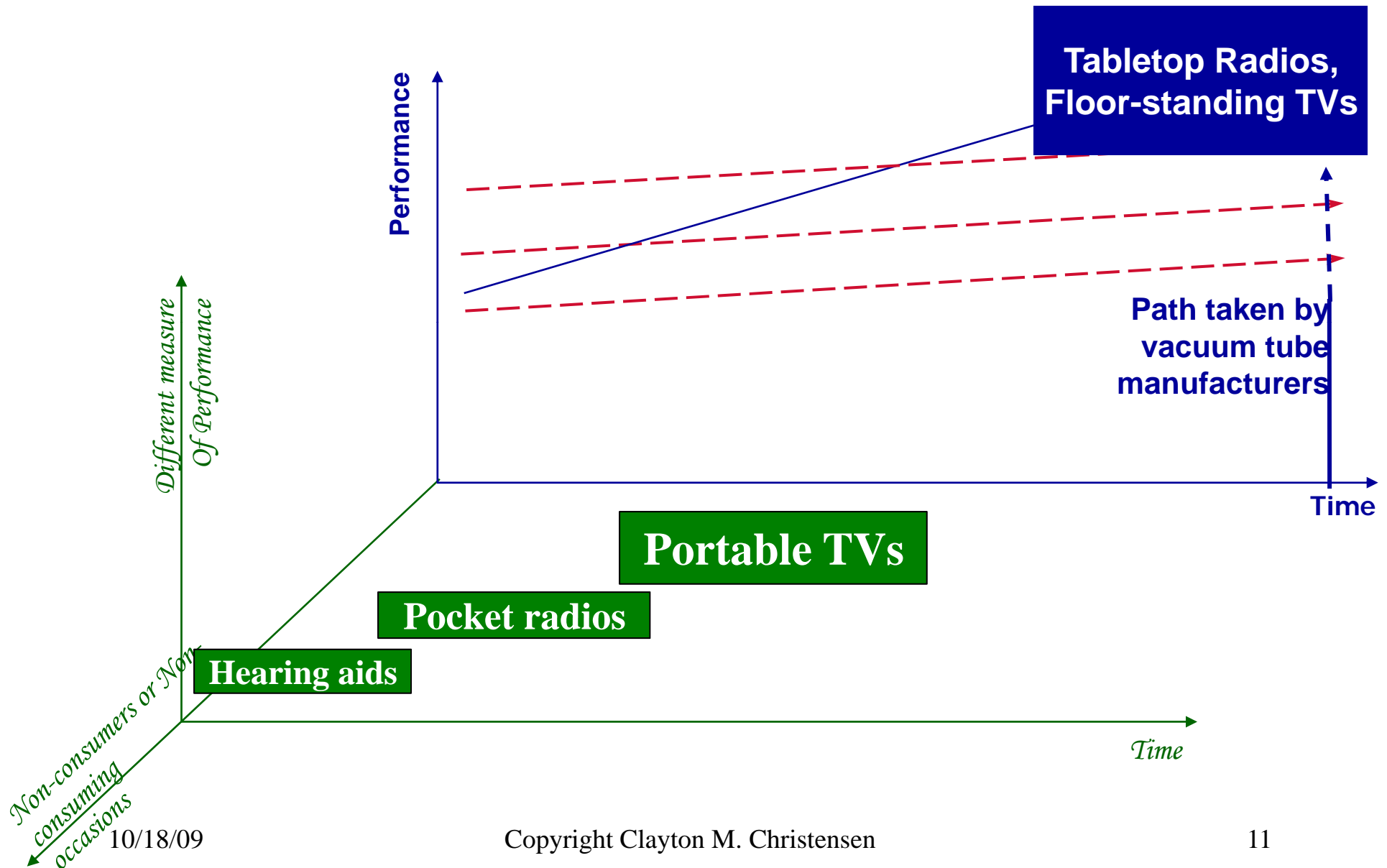
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The decentralization that follows centralization is only beginning in education



Expensive failure results when disruption is framed in technological rather than business model terms



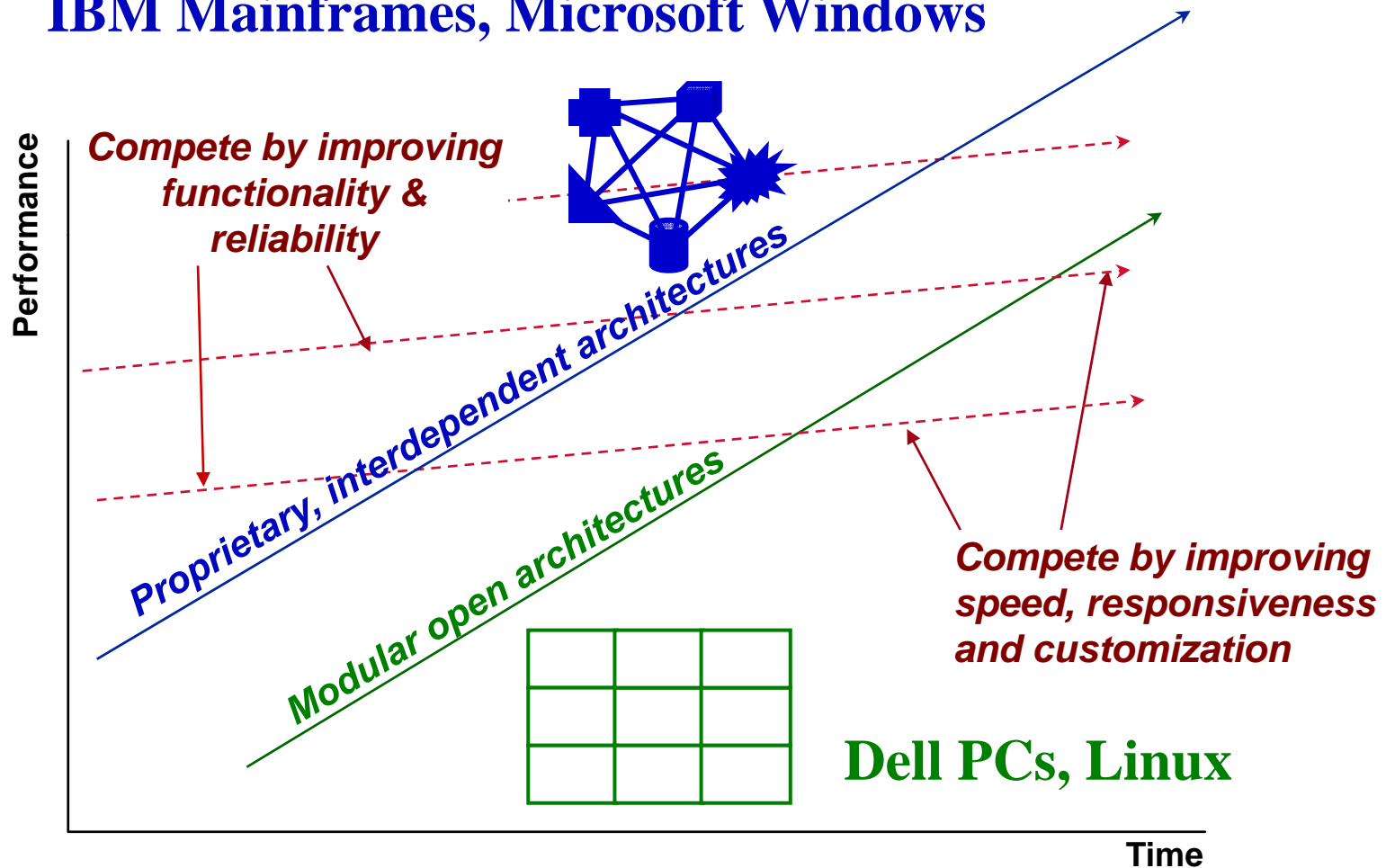
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The right product architecture depends upon the basis of competition

IBM Mainframes, Microsoft Windows



We all learn differently

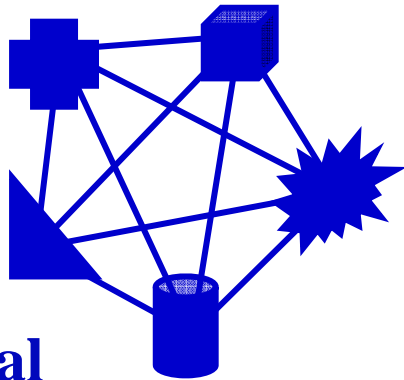
- Multiple intelligences
 - Linguistic, Mathematical, Kinesthetic
- Motivations/interests
- Learning Styles
 - Visual, aural, playful, deliberate
- Depends on subject/domain
- Research in practice
 - Scientific Learning
 - Universal Design for Learning/CAST
 - K12, Inc.
 - All Kinds of Minds
- Talents
 - “Giftedness” is fluid
- Aptitudes
- Different paces
 - Fast, medium, slow
- Ongoing cognitive science research
 - fMRI scans

Conflicting mandates in the way we must teach VS. The way students must learn

Interdependencies in the
teaching infrastructure

Need for customization for
differences in how we learn

Temporal
Lateral
Physical
Hierarchical



Standardization !!



Customization !!

Multiple Intelligences

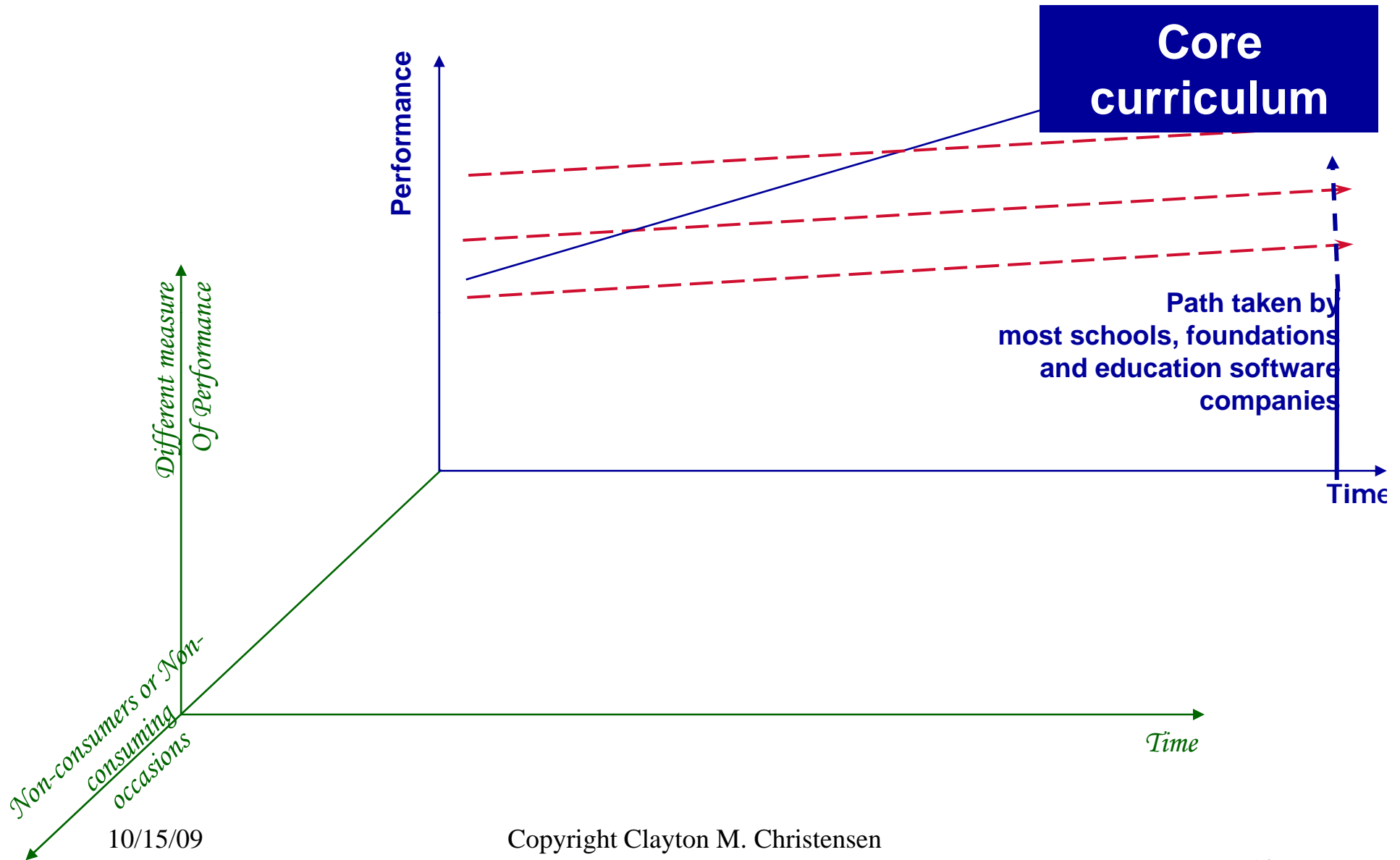
Learning Styles

Paces of Learning

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Historically, most schools have “crammed” computer-based learning into the blue space



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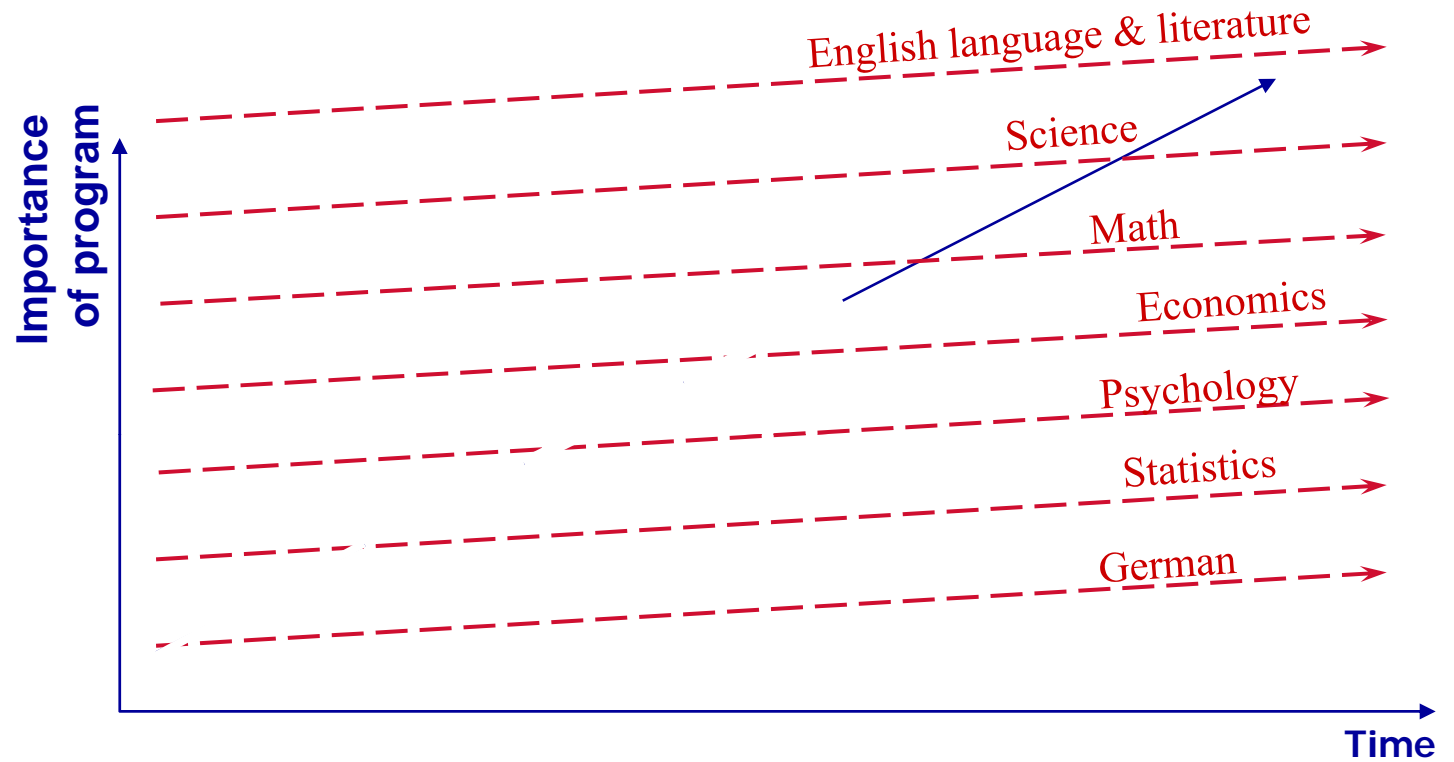
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Prime examples of non-consumption

- Credit recovery
- Drop-outs
- Advanced Placement and other advanced courses
- Scheduling conflicts
- Home-schooled and homebound students
- Small, rural, and urban schools
- Unit recovery
- Disaster preparedness
- Tutoring
- Professional development
- Pre-K
- After school
- In the home
- Incarcerated youth
- In-school suspension
- School bus commute
- Summer school

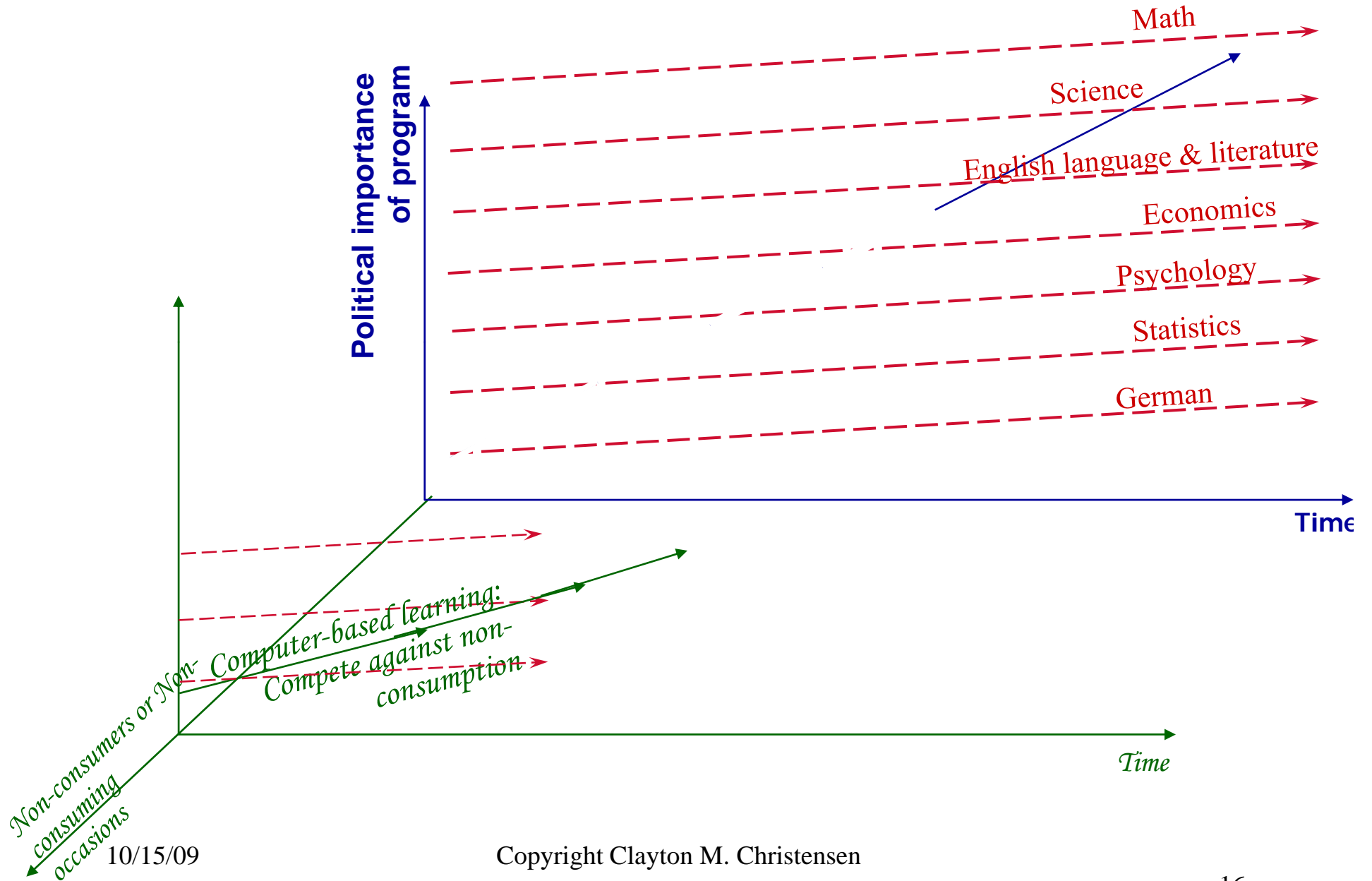
Looming budget cuts and teacher shortages are an opportunity, not a threat

School boards have been moving “up-market” to focus limited resources in the “new” trajectory of improvement

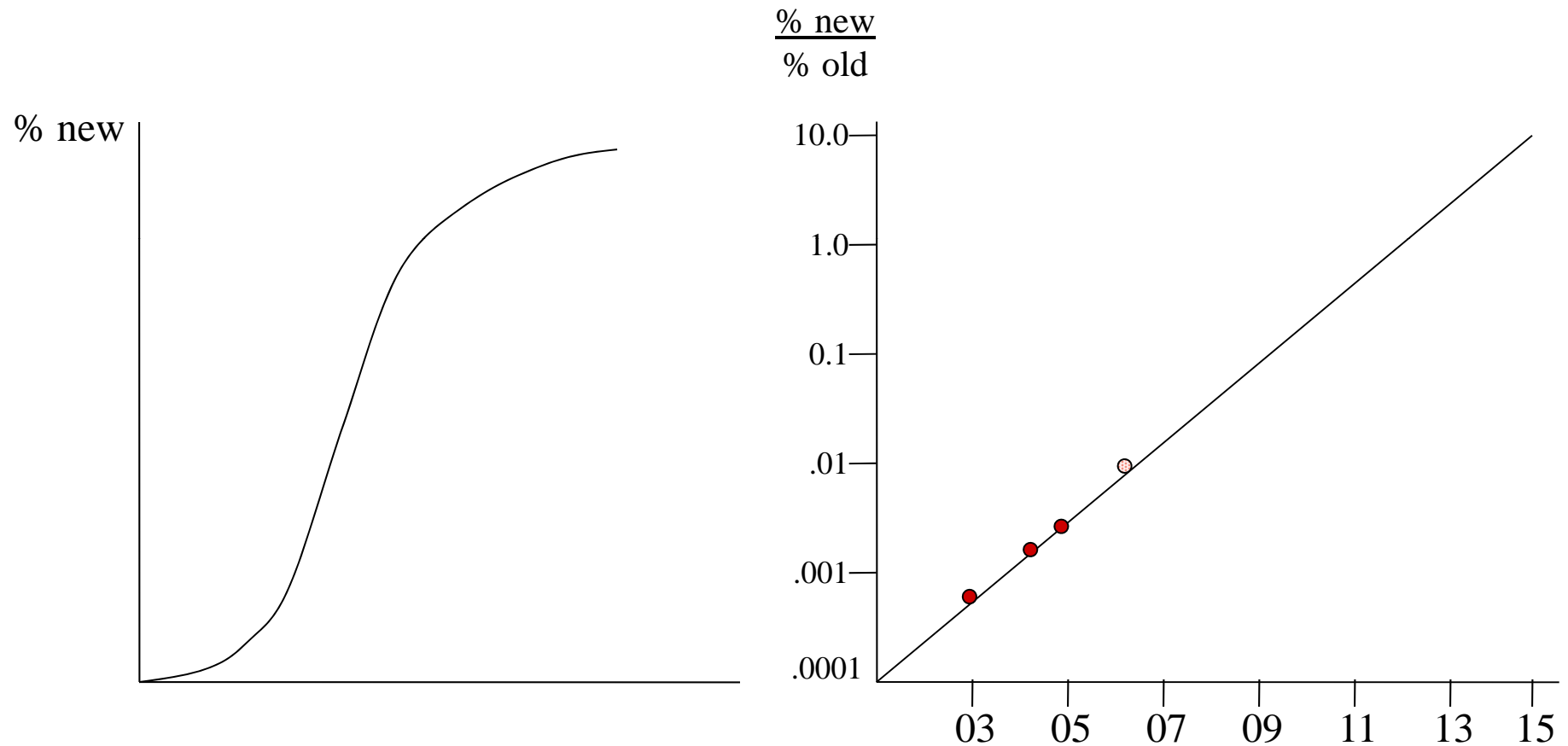


Time

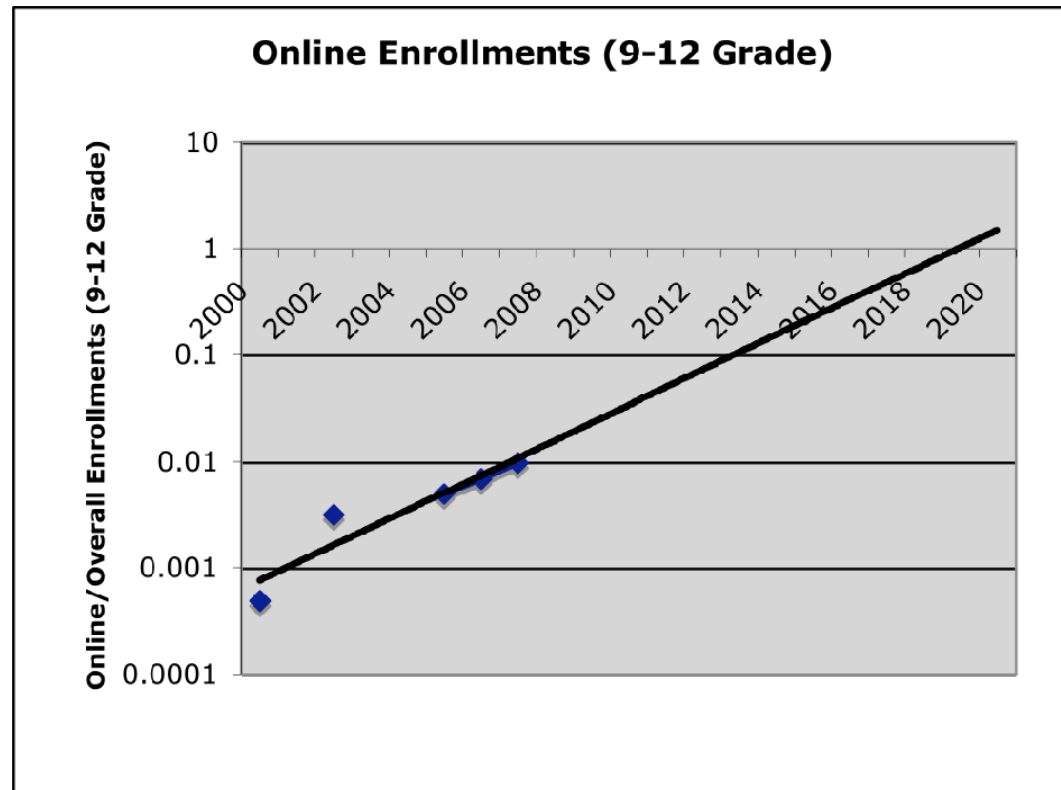
Perfect opportunity to implement online learning disruptively



The substitution of one thing for another always follows an S-curve pattern



Online learning gaining adoption



Enrollments up from 45,000 in 2000 to 1,000,000 in 2007

What are states doing?

- 44 states have some form of online learning initiative
- 32 states have supplemental state-led programs
 - FLVS, Idaho Digital Learning Academy, MVU
 - 4 of these have 10K+ enrollments
 - Over a quarter grew by over 50% last year

Policy implications

- Autonomous
- Self-sustaining funding
- Not beholden by the old metrics
 - Seat time → Mastery/Performance-based
 - Student: teacher ratio
 - Teacher certification
- Human resources pipeline and professional development
- Broadband/wireless infrastructure
- Portal/Based on usage and what works
- Treatment and use of data

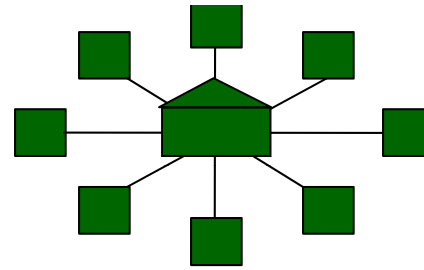
Transforming the content model

Value-adding
process
businesses



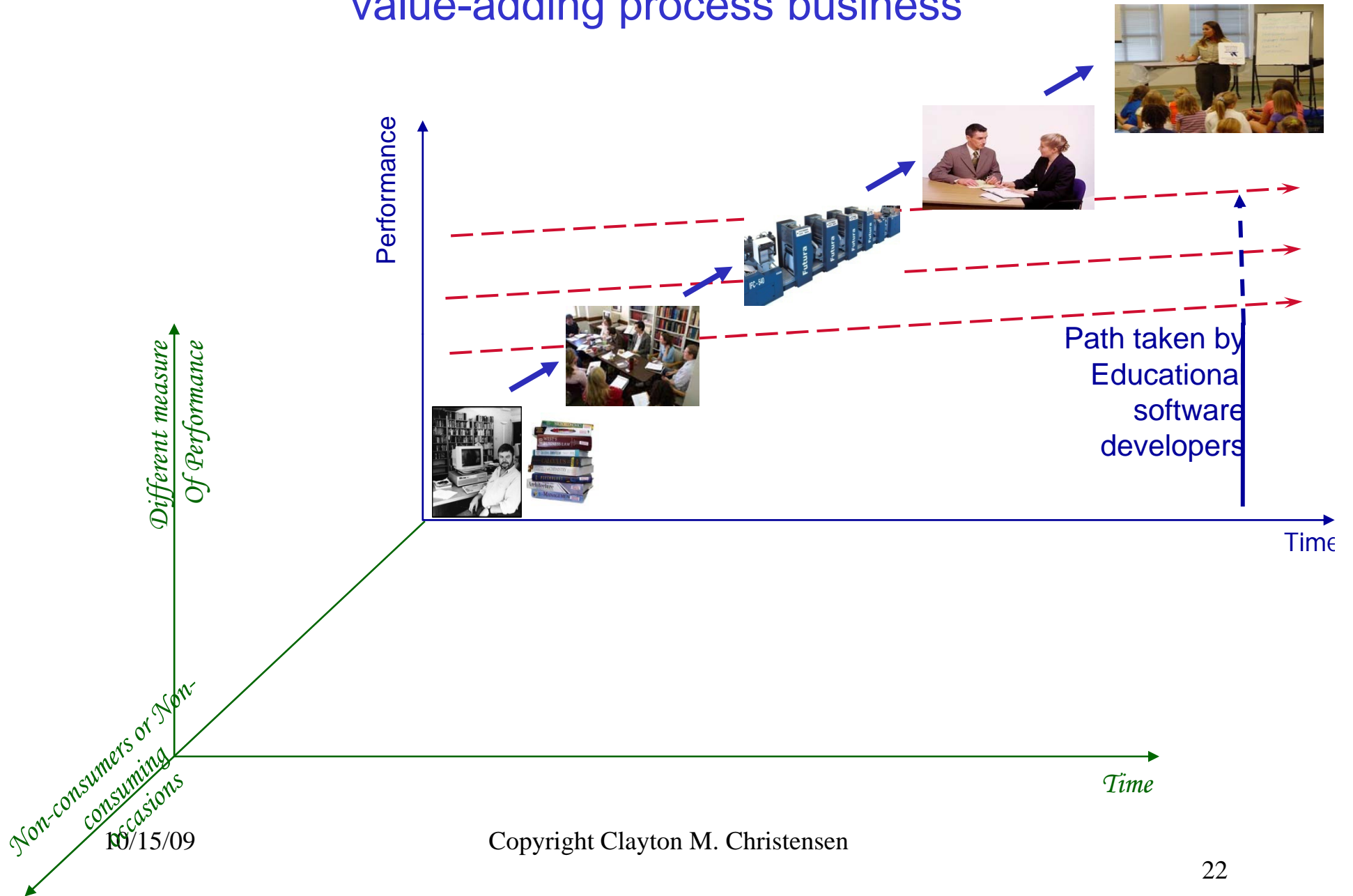
- Manufacturing
- Food services
- Medical procedures
- Instruction
- Textbooks; education software today

Facilitated-
network
businesses

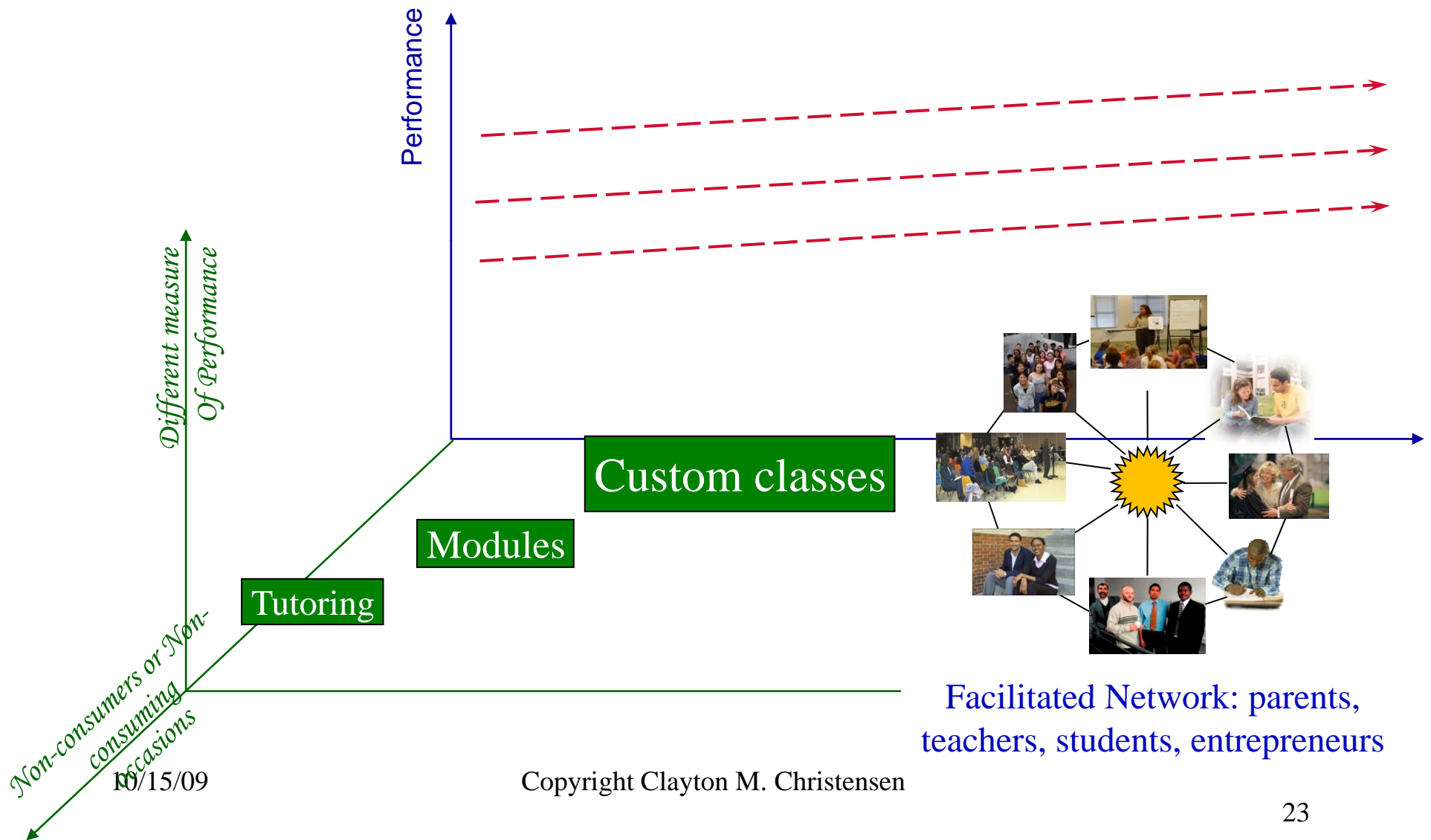


- Telecomm
- Insurance
- EBay
- D-Life
- Education software tomorrow

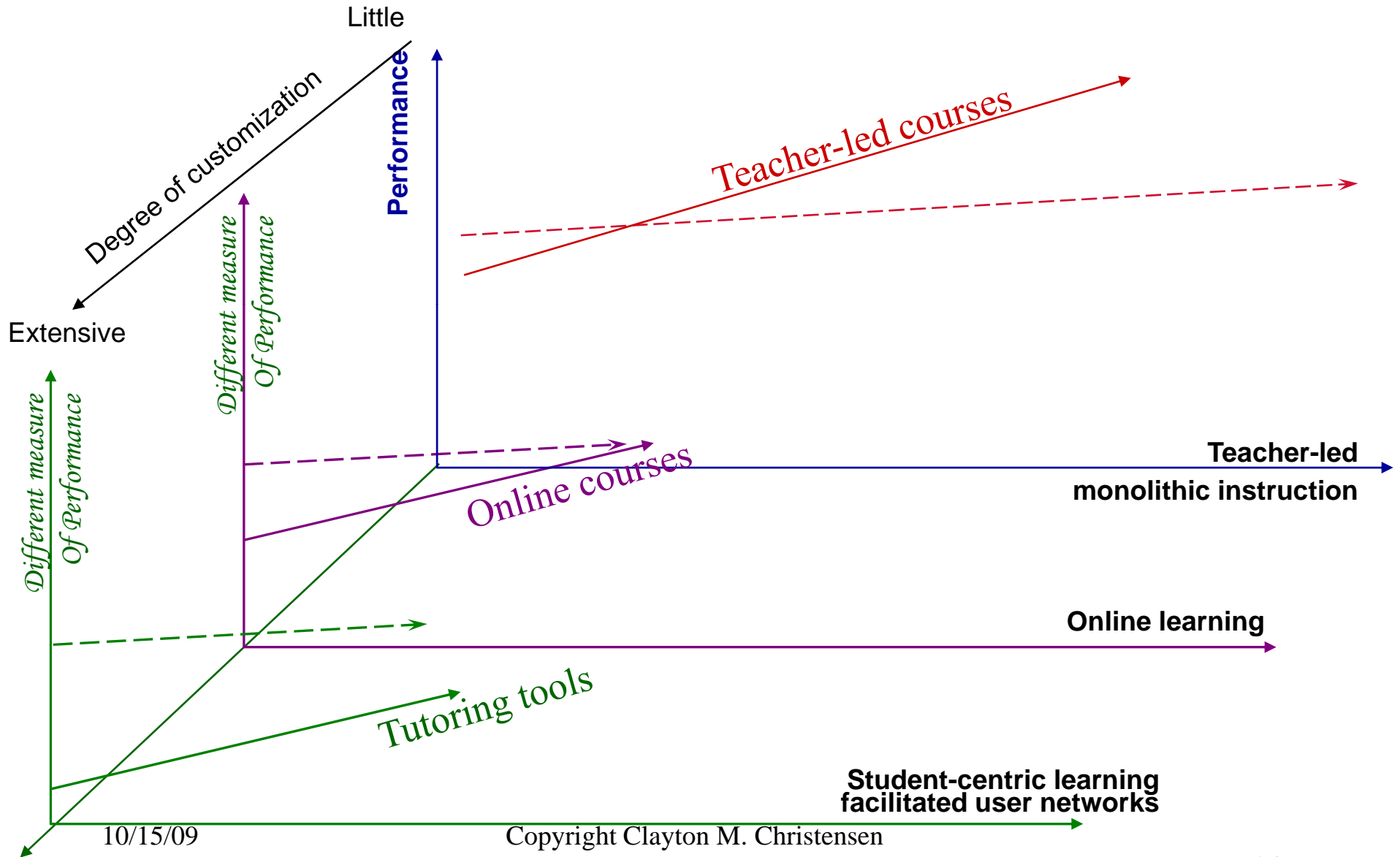
The instructional materials business historically has been a value-adding process business



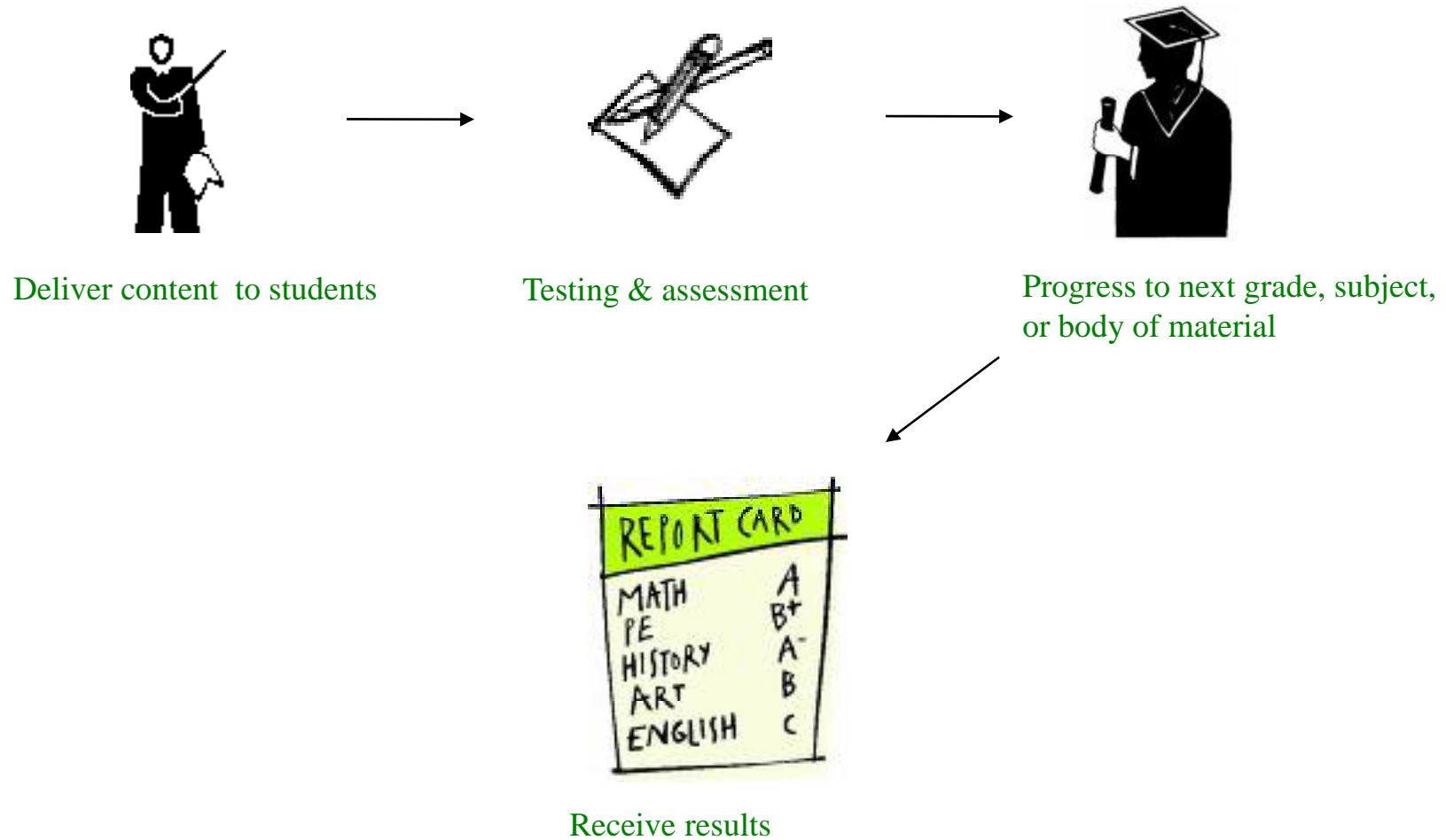
Student-centric software will be a facilitated-network business



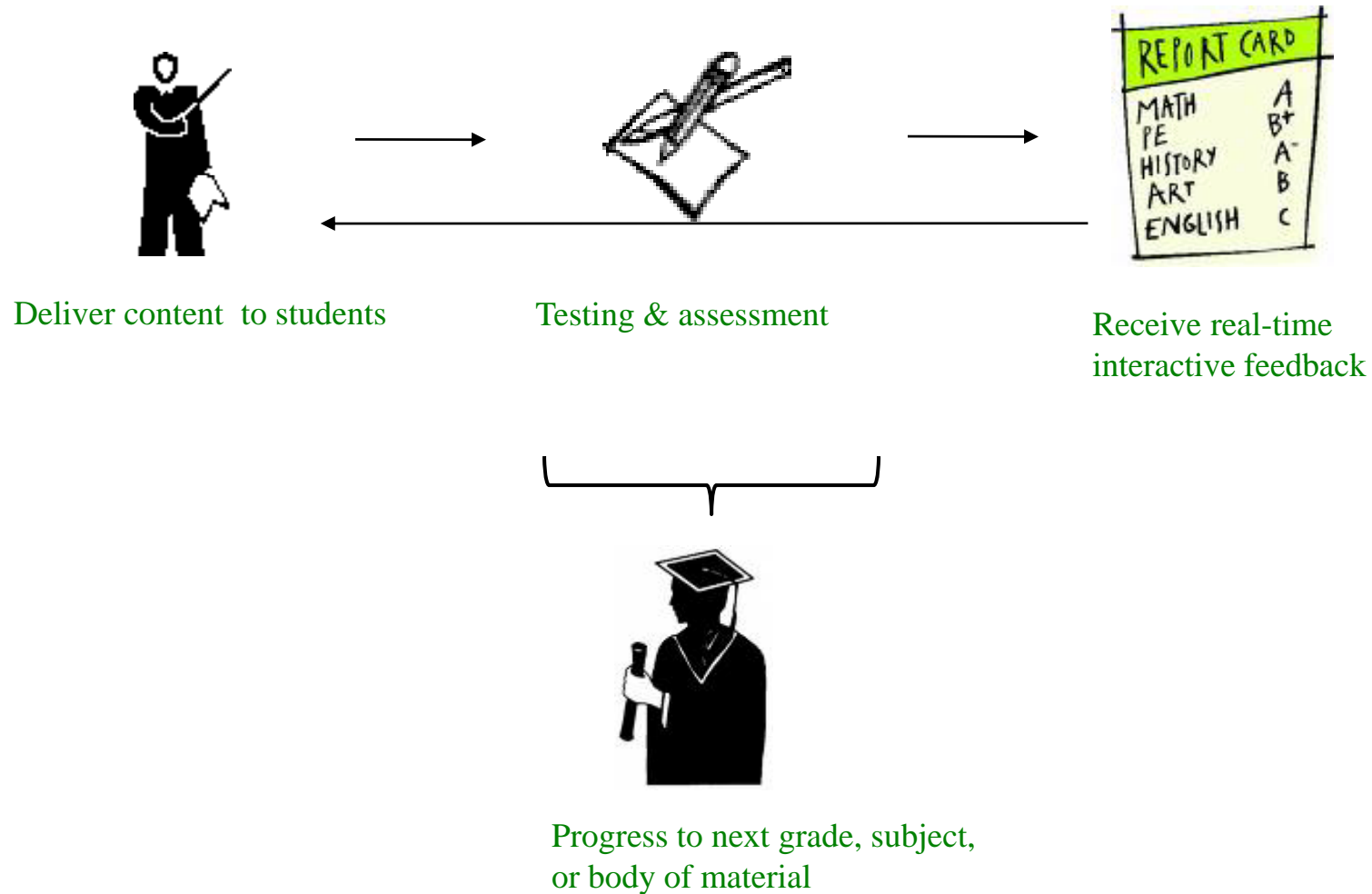
Stages in instructional disruption



Assessment in today's monolithic system



How should assessment work?



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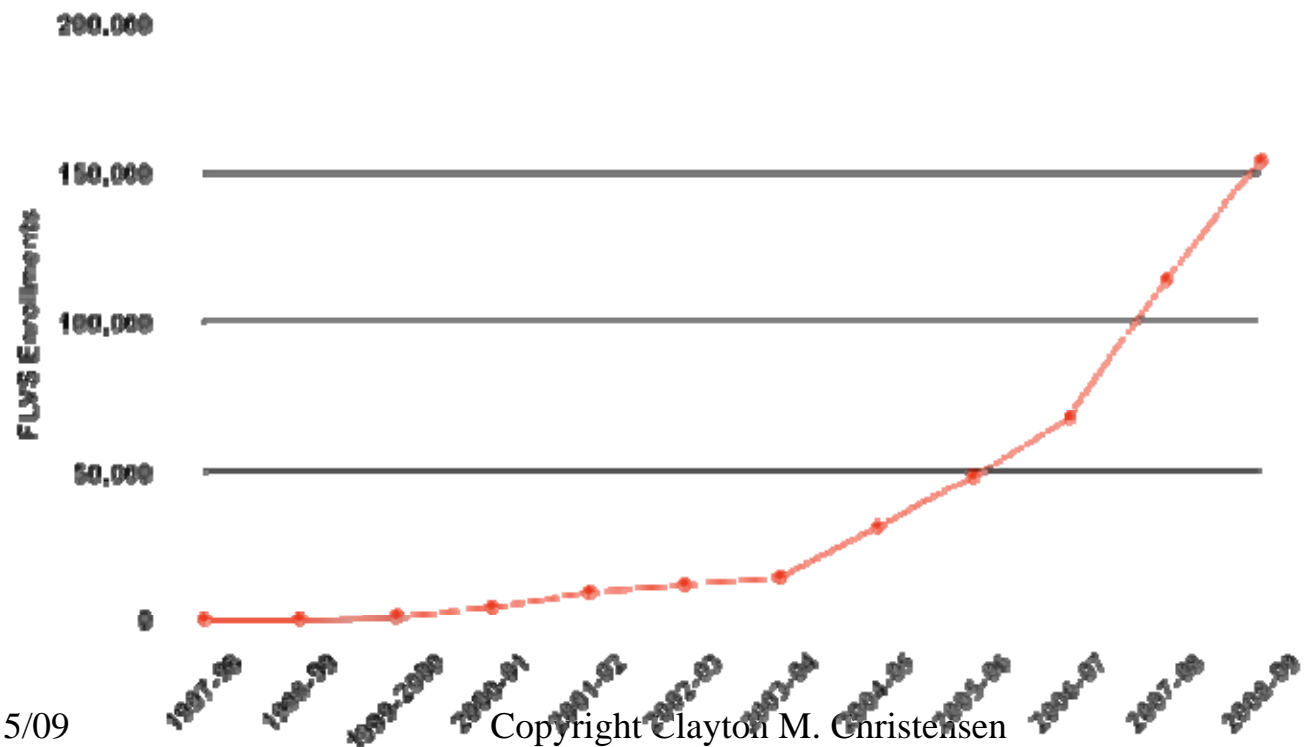
Why do we need to innovate?

When education is not delivered in an
intrinsically motivating way,
prosperity is an enemy to education

A case study of successful innovation in education: The Florida Virtual School

- Start small
- Break the mold grant for \$200K
- What should it look like?
- Unconstrained by old assumptions; what can we do with this new medium? What is true in this world?
- Puzzle: who will want to use this?

FLVS growth



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